ABSTRACT

The DCT converter 103 extracts block data 102 of a 8 × 8
pixel size from the original image 101 and then subjects

5   it to DCT conversion. The quantizer 104 quantizes the DCT
coefficient. The movement decision unit 106 obtains the
difference between the number $V(t)$ of DCT coefficients
obtained by the DCT converter 103 and the number $V(t-1)$ of
DCT coefficients of the previous frame previously held.

10   The movement decision unit 106 decides the movement as a
large value if the difference exceeds a certain threshold
value and decides the movement as a small value if the
difference is less than the threshold value. The
electronic watermark data inserter 105 extracts electronic

15   watermark data $W(j)$ which matches the location where 8 ×
8 block data is extracted from the electronic watermark
data table 109, the picture type and the movement and then
inserts it into the data after quantization output from
the quantizer 104.